

# JDBC - CREATE TABLES EXAMPLE

<http://www.tutorialspoint.com/jdbc/jdbc-create-tables.htm>

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This tutorial provides an example on how to create a table using JDBC application. Before executing following example, make sure you have the following in place:

- To execute the following example you can replace *username* and *password* with your actual user name and password.
- Your MySQL or whatever database you are using is up and running.

## Required Steps:

There are following steps required to create a new Database using JDBC application:

- **Import the packages:** Requires that you include the packages containing the JDBC classes needed for database programming. Most often, using *import java.sql.\** will suffice.
- **Register the JDBC driver:** Requires that you initialize a driver so you can open a communications channel with the database.
- **Open a connection:** Requires using the *DriverManager.getConnection()* method to create a Connection object, which represents a physical connection with a database server.
- **Execute a query:** Requires using an object of type Statement for building and submitting an SQL statement to create a table in a selected database.
- **Clean up the environment .** Requires explicitly closing all database resources versus relying on the JVM's garbage collection.

## Sample Code:

Copy and past following example in JDBCExample.java, compile and run as follows:

```
//STEP 1. Import required packages
import java.sql.*;

public class JDBCExample {
    // JDBC driver name and database URL
    static final String JDBC_DRIVER = "com.mysql.jdbc.Driver";
    static final String DB_URL = "jdbc:mysql://localhost/STUDENTS";

    // Database credentials
    static final String USER = "username";
    static final String PASS = "password";

    public static void main(String[] args) {
        Connection conn = null;
        Statement stmt = null;
        try{
            //STEP 2: Register JDBC driver
            Class.forName("com.mysql.jdbc.Driver");

            //STEP 3: Open a connection
            System.out.println("Connecting to a selected database...");
            conn = DriverManager.getConnection(DB_URL, USER, PASS);
            System.out.println("Connected database successfully...");

            //STEP 4: Execute a query
            System.out.println("Creating table in given database...");
```

```

stmt = conn.createStatement();

String sql = "CREATE TABLE REGISTRATION " +
            "(id INTEGER not NULL, " +
            " first VARCHAR(255), " +
            " last VARCHAR(255), " +
            " age INTEGER, " +
            " PRIMARY KEY ( id ))";

stmt.executeUpdate(sql);
System.out.println("Created table in given database...");
}catch(SQLException se){
    //Handle errors for JDBC
    se.printStackTrace();
}catch(Exception e){
    //Handle errors for Class.forName
    e.printStackTrace();
}finally{
    //finally block used to close resources
    try{
        if(stmt!=null)
            conn.close();
    }catch(SQLException se){
    }// do nothing
    try{
        if(conn!=null)
            conn.close();
    }catch(SQLException se){
        se.printStackTrace();
    }//end finally try
    }//end try
    System.out.println("Goodbye!");
} //end main
} //end JDBCExample

```

Now let us compile above example as follows:

```

C:\>javac JDBCExample.java
C:\>

```

When you run **JDBCExample**, it produces following result:

```

C:\>java JDBCExample
Connecting to a selected database...
Connected database successfully...
Creating table in given database...
Created table in given database...
Goodbye!
C:\>

```